

Application No. 10/036,590

REMARKS

Claims 1 to 20 are pending in the application. Claims 1 to 4, 9, 10, and 13 to 20 stand rejected under 35 U.S.C. §102(b) as being anticipated by Gundlach et al. (U.S. Patent 6,054,505). Claims 1 to 8 and 11 to 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gundlach et al. in view of Vieira et al. (U.S. Patent 5,686,633). Claims 1 to 7 and 11 to 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gundlach et al. in view of Yokoyama et al. (U.S. Patent 4,256,493).

Applicants respectfully traverse the rejections of the claims. The present invention is directed to an ink composition comprising (a) water and (b) a complex of (i) an anionic dye, (ii) an anionic lightfastness-imparting agent which is an ultraviolet absorber, a thiosulfate salt, a trithionate salt, a tetrathionate salt, or a mixture thereof, and (iii) a polyquaternary amine compound.

The Examiner has rejected claims 1 to 4, 9, 10, and 13 to 20 under §102(b) as being anticipated by Gundlach et al. Gundlach et al. discloses an ink composition which comprises (1) water; (2) a nonpolymeric salt comprising at least one cation and at least one anion; and (3) a colorant comprising an anionic dye complexed with a polyquaternary amine compound. Also disclosed is an ink composition which comprises (1) water; (2) a nonpolymeric salt comprising at least one cation and at least one anion; (3) an anionic dye; and (4) a polyquaternary amine compound. In one embodiment, the polyquaternary amine compound is selected from the group consisting of polydiallyl ammonium compounds, polyquaternized polyvinylamines,

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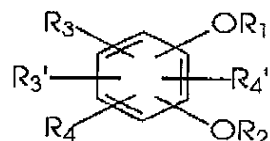
polyquaternized polyallylamines, epichlorohydrin/amine copolymers, cationic amido amine copolymers, copolymers of vinyl pyrrolidinone and a vinyl imidazolium salt, and mixtures thereof. The reference further discloses that other optional additives can be present in the inks, including pH controlling agents such as acids or bases, phosphate salts, carboxylate salts, sulfite salts, amine salts, and the like.

The Examiner has stated that Gundlach et al. discloses an ink comprising water, 0.1 to 40 percent nonpolymeric salt, 0.01 to 1 percent sulfite salt, 1 to 5 percent anionic dye, and a polyquaternary amine such as polydiallyl dimethyl ammonium, polyquaternized polyvinylamine, polyquaternized polyallylamine, epichlorohydrin/amine, cationic amido amine, and copolymers of vinyl pyrrolidone and vinyl imidazolium salt, that the ratio of dye to sulfite salt is calculated to be, for example, 5:1, that the reference discloses that the ink is preferably printed using a thermal ink jet printer but also discloses the use of other conventionally known ink jet printing methods such as acoustic ink jet printing and piezoelectric ink jet printing, that although there is no explicit disclosure that the dye, polyquaternary amine, and sulfite salt form a complex, given that the reference discloses that upon mixing the ink ingredients the anionic dye and the polyquaternary amine compound form a complex and given that the anionic dye, polyquaternary amine, and sulfite salt disclosed by the reference are identical to that presently claimed, these ingredients will inherently form a complex. The Examiner is of the position that this reference anticipates the present invention as recited in claims 1 to 4, 9, 10, and 13 to 20.

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Applicants have amended claims 1, 16, and 20 to recite that the anionic lightfastness-imparting agent is an ultraviolet absorber, a thiosulfate salt, a trithionate salt, a tetrathionate salt, or a mixture thereof, and have cancelled claim 9 and amended claim 10 to remove sulfite salts therefrom. Applicants believe that these amendments to the claims clearly distinguish them from the teachings of Gundlach et al. and accordingly respectfully request reconsideration and withdrawal of this ground for rejection.

The Examiner has also rejected claims 1 to 8 and 11 to 20 under §103 as being unpatentable over Gundlach et al. in view of Vieira et al. Vieira et al. discloses inks, particularly inks for Ink Jet printing, containing at least one compound of the formula

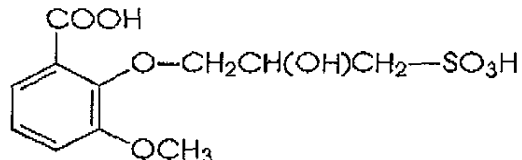


as a stabilizer. The symbols R₁, R₂, R₃, R₄, R_{3'}, and R_{4'} are as defined in claim 1. The compounds are in part novel and are suitable for use as light stabilizers for organic materials.

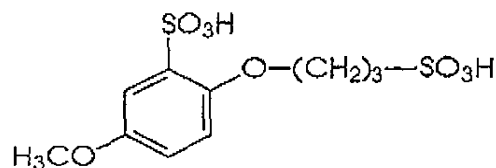
The Examiner has stated that Gundlach et al. discloses an ink comprising water, 0.1 to 40 percent nonpolymeric salt, 1 to 5 percent anionic dye, and a polyquaternary amine such as polydiallyl dimethyl ammonium, polyquaternized polyvinylamine, polyquaternized polyallylamine, epichlorohydrin/amine, cationic amido amine, and copolymers of vinyl pyrrolidone and vinyl imidazolium salt, that the reference discloses that the ink is preferably printed using a thermal ink

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jet printer but also discloses the use of other conventionally known ink jet printing methods such as acoustic ink jet printing and piezoelectric ink jet printing, that the difference between this reference and the present claimed invention is the requirement in the claims of (a) an anionic lightfastness-imparting agent, and (b) the number of cationic sites on the polyquaternary amine per one anionic site on the dye or the number of cationic sites on the polyquaternary amine per one anionic site on the lightfastness imparting agent, that with respect to difference (a), Vieira et al., which is drawn to ink jet inks, discloses the use of 0.01 to 30 percent anionic lightfastness imparting agent identical to that presently claimed such as 2,3-dimethoxybenzoic acid, 3,4,5-trimethoxybenzoic acid, 4,5-dimethoxyphthalic acid, 2,3-bis(carboxymethyloxy)benzoic acid,



or



that the motivation for using these lightfastness imparting agents is to produce a stable ink that will not fade or discolor, that although there is no disclosure in either Gundlach et al. or Vieira et al. of complex of dye, polyquaternary amine, and lightfastness Imparting agent as presently

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claimed, given that Gundlach et al. discloses that upon mixing the ink ingredients, the anionic dye and the polyquaternary amine compound form a complex and given that Gundlach et al. in view of Vieira et al. disclose anionic dye, polyquaternary amine, and lightfastness imparting agent identical to those presently claimed, these ingredients will intrinsically form a complex, that in light of the motivation for using lightfastness imparting agents disclosed by Vieira et al., it would have been obvious to one of ordinary skill in the art to use such lightfastness imparting agent in the ink of Gundlach et al. to produce a stable ink that will not fade or discolor and thereby arrive at the claimed invention, that with respect to difference (b), Gundlach et al. discloses that the number of cationic sites on the polyquaternary amine compound must be larger than the number of anionic sites on the dye to avoid the polymer from precipitating, but contains no explicit disclosure of the number of cationic sites on the polyquaternary amine per one anionic site on the dye or the number of cationic sites on the polyquaternary amine per one anionic site on the lightfastness imparting agent, and that given that Gundlach et al. discloses that the number of cationic groups should be larger than the number of anionic groups to avoid precipitation, it would have been obvious to one of ordinary skill in the art to control the number of cationic sites on the polyquaternary amine per one anionic site on the dye or per one anionic site on the lightfastness imparting agent to values, including that presently claimed, to prevent precipitation and to produce an ink with excellent shelf stability and thereby arrive at the claimed invention. The Examiner is thus of the

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position that these references, viewed in combination, render obvious the present invention as recited in claims 1 to 8 and 11 to 20.

Applicants disagree with this position. Gundlach et al. neither teaches nor suggests the use of lightfastness agents such as ultraviolet absorbers, thiosulfate salts, trithionate salts, or tetrathionate salts in the inks disclosed therein. Vieira et al. teaches simple addition of lightfastness agents of the given formula into inks, and neither teaches nor suggests that such agents could or should form complexes with other ink ingredients. Vieira et al. further fails to teach or suggests inks containing polyquaternary amines. One of ordinary skill in the art would not be motivated to view these particular references in combination and would not be led to make an ink wherein both an anionic dye and an anionic lightfastness-imparting agent are complexed to a polyquaternary amine. As stated in the present application:

it is believed that in the inks according to the present invention, the lightfastness-imparting agent and the anionic dye are both complexed to the polyquaternary amine compound, and are thus in close proximity to each other; accordingly, the lightfastness-imparting agent is always in a location wherein it can function most efficaciously in protecting the chromophore from degradation caused by short wave radiation such as ultraviolet radiation. This protection is particularly important in ink compositions that employ an anionic dye in combination with cationic fixing agents.

As further stated in the present application:

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It is believed that incorporation of anionic lightfastness agents in accordance with the teachings of this invention promote the lightfastness of ternary mixtures of an anionic lightfastness-imparting agent and anionic dye in association with a polyquaternary amine compound by separating the dye molecules associated with the anionic polymer with anionic reagents that can actively interact with photoexcited dye molecules to promote non-destructive recombination of photoexcited anionic radicals and intercept destructive free-radical intermediates.

Nothing in either of the references, viewed either alone or in combination, teaches or suggests such an ink. The Examiner appears to have considered various portions of the references cited, in each instance viewing the cited portion in isolation from the context of the entire reference, and combined these isolated portions to arrive at the present invention with the benefit of hindsight. Using hindsight or applying the benefit of the teachings of the present application when determining obviousness, however, is impermissible; the references applied must be reviewed without hindsight, must be reviewed as a whole, and must suggest the desirability of combining the references. Lindemann Maschinenfabrik v. American Hoist & Derrick Co., 221 U.S.P.Q. 481 (Fed. Cir. 1984). The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure. In re Dow Chemical, 5 U.S.P.Q. 2d 1529 (Fed. Cir. 1988). The Examiner is using

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Applicants' disclosure as a recipe for selecting the appropriate portions of the prior art to construct Applicants' Ink. A piecemeal reconstruction of the prior art patents in light of Applicants' disclosure is not a basis for a holding of obviousness. In re Kamm, et al., 172 U.S.P.Q. 298 (C.C.P.A. 1972). The mere fact that the prior art inks could have been modified does not make the modification obvious unless the prior art suggested the desirability of such a modification. In re Gordon, 221 U.S.P.Q. 1125, (Fed. Cir. 1984); Jones v. Hardy, 220 U.S.P.Q. 1021, (Fed. Cir. 1984).

The Examiner may be of the position that the invention claimed in the present application would be obvious to try after reviewing the cited references. Obvious to try, however, is not the standard by which obviousness is determined under 35 U.S.C. §103. In re Geiger, 2 U.S.P.Q. 2d 1276 (Fed. Cir. 1987); In re Yates, 211 U.S.P.Q. 1149 (CCPA 1981); In re Goodwin, 576 F.2d 375, 198 U.S.P.Q. 1 (CCPA 1978). Applicants direct attention to the decision in In re Geiger, 2 U.S.P.Q. 2d 1276 (Fed. Cir. 1987). In this case, the invention was a method of inhibiting scale formation on and corrosion of metallic parts in cooling water systems by use of compositions containing (1) a sulfonated styrene/maleic anhydride (SSMA) copolymer, (2) a water soluble zinc compound, and (3) an organo-phosphorus acid compound or water soluble salt thereof. The Federal Circuit discussed three references cited against the claimed invention. The first, *li*, disclosed use in cooling water systems of scale and corrosion prevention compositions comprising a polymeric component in combination with one or more compounds selected from the group consisting of inorganic phosphoric acids and water soluble salts thereof, phosphonic acids and water soluble salts

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thereof, organic phosphoric acid esters and water soluble salts thereof, and polyvalent metal salts; the li polymeric component could contain maleic acid and styrene monomers, but there was no disclosure of the specific copolymer SSMA required in Geiger's claims. The second reference, Snyder '733, disclosed a method for treating cooling water systems prone to scale formation by the addition of a composition comprising an acrylic acid/lower alkyl/hydroxy acrylate copolymer and another polymeric component, which could be SSMA or a styrene/maleic anhydride copolymer; this reference noted that boiler and cooling water systems share a common problem in regard to scale deposit formation and that use of a styrene/maleic anhydride copolymer to prevent scale in boiler water systems was known. The third reference, Hwa, disclosed a method for treating boiler water systems that are prone to scale formation by addition of a composition comprising SSMA and an organo-phosphorus acid component. The Board had held that, based upon the prior art and the fact that each of the three components of the composition used in the claimed method were conventionally employed in the art for treating cooling water systems, it would have been prima facie obvious, within the meaning of 35 U.S.C. §103, to employ these components in combination for their known functions and to optimize the amount of each additive. The Federal Circuit reversed, stating that li did not suggest use of SSMA as its claimed polymeric component and did not require the presence of an organophosphorus acid compound or a zinc compound, that although Snyder '733 disclosed the use of SSMA, it was for the purpose of showing that it, or one of three other specifically recited copolymers, could be

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used in combination with yet another polymeric component to prevent scale formation, and that while Hwa did disclose the specifically-recited organophosphorus acid compound, it provided no suggestion to add a zinc compound to its disclosed combination of SSMA and organophosphorus acid compounds, or to use SSMA in combination with an organophosphorus acid compound in the treatment of a cooling water system, where the characteristics could differ significantly from those in Hwa's boiler water system. The court concluded, "At best, in view of these disclosures, one skilled in the art might find it obvious to try various combinations of these known scale and corrosion prevention agents. However, this is not the standard of 35 U.S.C. §103." More recently, the Court of Appeals for the Federal Circuit has stated: "With hindsight, we could perhaps agree that the Houghton article seems like an obvious place to start to address the need in the power plant industry for an improved carbon-catalyzed deoxygenation process employing hydrazine that can be used commercially in a variety of applications. But, "obvious to try" is not the standard." Ecolchem Inc. v. Southern California Edison, 56 U.S.P.Q. 2d 1065, 1075 (Fed. Cir. 2000). Since nothing in the cited references, viewed in combination, teaches or suggests to one of ordinary skill in the art an ink as recited in claims 1 to 8 and 11 to 20, Applicants are of the position that these claims are patentable with respect to the teachings of the cited references, and accordingly respectfully request reconsideration and withdrawal of this ground for rejection.

Applicants further point out that nothing in the combination of cited references teaches or suggests to one of ordinary

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skill in the art the present invention as recited in claim 12, which recites specific numbers of cationic sites on the polyquaternary amine molecule for every one anionic site on the lightfastness-imparting agent molecule, and claim 13, which recites specific molar ratios of dye molecules to lightfastness-imparting agent molecules. Since the references do not teach or suggest the specific combination of polyquaternary amine and anionic lightfastness agent in an ink, these references further do not teach or suggest desirable ratios for these values. Accordingly, Applicants are of the position that these claims are particularly in condition for allowance.

The Examiner has also rejected claims 1 to 7 and 11 to 20 under §103 as being unpatentable over Gundlach et al. in view of Yokoyama et al. Yokoyama et al. discloses a jet ink composition which comprises an aqueous jet ink containing a water-soluble dye, a wetting agent, and water as main components and, incorporated therein, a water-soluble ultraviolet absorbing agent, as well as a metal salt, when necessary.

The Examiner has stated that Gundlach et al. discloses an ink comprising water, 0.1 to 40 percent nonpolymeric salt, 1 to 5 percent anionic dye, and a polyquaternary amine such as polydiallyl dimethyl ammonium, polyquaternized polyvinylamine, polyquaternized polyallylamine, epichlorohydrin/amine, cationic amido amine, and copolymers of vinyl pyrrolidone and vinyl imidazolium salt, that the reference discloses that the ink is preferably printed using a thermal ink jet printer but also discloses the use of other conventionally known ink jet printing methods such as acoustic ink jet printing and piezoelectric ink jet

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printing, that the difference between this reference and the present claimed invention is the requirement in the claims of (a) an anionic lightfastness-imparting agent, and (b) the number of cationic sites on the polyquaternary amine per one anionic site on the dye or the number of cationic sites on the polyquaternary amine per one anionic site on the lightfastness imparting agent, that with respect to difference (a), Yokoyama et al., which is drawn to ink jet inks, discloses the use of UV absorbing agents such as 2-hydroxy-4-methoxybenzophenone-5-sulfonic acid or 2,2'-dihydroxy-4,4'-dimethoxybenzophenone-5-sulfonic acid to produce ink with good resistance to light that will not clog the printer nozzles, that although there is no disclosure in either Gundlach et al. or Yokoyama et al. of complex of dye, polyquaternary amine, and lightfastness imparting agent as presently claimed, given that Gundlach et al. discloses that upon mixing the ink ingredients, the anionic dye and the polyquaternary amine compound form a complex and given that Gundlach et al. in view of Yokoyama et al. disclose anionic dye, polyquaternary amine, and lightfastness imparting agent identical to those presently claimed, these ingredients will intrinsically form a complex, that in light of the motivation for using lightfastness imparting agents disclosed by Yokoyama et al., it would have been obvious to one of ordinary skill in the art to use such lightfastness imparting agent in the ink of Gundlach et al. to produce an ink with good resistance to light that will not clog the printer nozzles and thereby arrive at the claimed invention, that with respect to difference (b), Gundlach et al. discloses that the number of cationic sites on the polyquaternary amine compound must be larger than the number of anionic sites on the dye to

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avoid the polymer from precipitating, but contains no explicit disclosure of the number of cationic sites on the polyquaternary amine per one anionic site on the dye or the number of cationic sites on the polyquaternary amine per one anionic site on the lightfastness imparting agent, and that given that Gundlach et al. discloses that the number of cationic groups should be larger than the number of anionic groups to avoid precipitation, it would have been obvious to one of ordinary skill in the art to control the number of cationic sites on the polyquaternary amine per one anionic site on the dye or per one anionic site on the lightfastness imparting agent to values, including that presently claimed, to prevent precipitation and to produce an ink with excellent shelf stability and thereby arrive at the claimed invention. The Examiner is thus of the position that these references, viewed in combination, render obvious the present invention as recited in claims 1 to 7 and 11 to 20.

Applicants disagree with this position. Gundlach et al. neither teaches nor suggests the use of lightfastness agents such as ultraviolet absorbers, thiosulfate salts, trithionate salts, or tetrathionate salts in the inks disclosed therein. Yokoyama et al. teaches simple addition of ultraviolet absorbing agents into inks, and neither teaches nor suggests that such agents could or should form complexes with other ink ingredients. Yokoyama et al. further fails to teach or suggests inks containing polyquaternary amines. One of ordinary skill in the art would not be motivated to view these particular references in combination and would not be led to make an ink wherein both an anionic dye and an anionic lightfastness-imparting agent are complexed to a polyquaternary amine. As stated in the present application:

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it is believed that in the inks according to the present invention, the lightfastness-imparting agent and the anionic dye are both complexed to the polyquaternary amine compound, and are thus in close proximity to each other; accordingly, the lightfastness-imparting agent is always in a location wherein it can function most efficaciously in protecting the chromophore from degradation caused by short wave radiation such as ultraviolet radiation. This protection is particularly important in ink compositions that employ an anionic dye in combination with cationic fixing agents.

As further stated in the present application:

it is believed that incorporation of anionic lightfastness agents in accordance with the teachings of this invention promote the lightfastness of ternary mixtures of an anionic lightfastness-imparting agent and anionic dye in association with a polyquaternary amine compound by separating the dye molecules associated with the anionic polymer with anionic reagents that can actively interact with photoexcited dye molecules to promote non-destructive recombination of photoexcited anionic radicals and intercept destructive free-radical intermediates.

Nothing in either of the references, viewed either alone or in combination, teaches or suggests such an ink. The Examiner appears to have considered various portions of the references cited, in each instance viewing the cited portion in isolation from the context of the entire reference, and combined these isolated portions to arrive at the present invention with the benefit of hindsight. Using hindsight or

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applying the benefit of the teachings of the present application when determining obviousness, however, is impermissible; the references applied must be reviewed without hindsight, must be reviewed as a whole, and must suggest the desirability of combining the references. Lindemann Maschinenfabrik v. American Hoist & Derrick Co., 221 U.S.P.Q. 481 (Fed. Cir. 1984). The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure. In re Dow Chemical, 5 U.S.P.Q. 2d 1529 (Fed. Cir. 1988). The Examiner is using Applicants' disclosure as a recipe for selecting the appropriate portions of the prior art to construct Applicants' ink. A piecemeal reconstruction of the prior art patents in light of Applicants' disclosure is not a basis for a holding of obviousness. In re Kamm et al., 172 U.S.P.Q. 298 (C.C.P.A. 1972). The mere fact that the prior art inks could have been modified does not make the modification obvious unless the prior art suggested the desirability of such a modification. In re Gordon, 221 U.S.P.Q. 1125, (Fed. Cir. 1984); Jones v. Hardy, 220 U.S.P.Q. 1021, (Fed. Cir. 1984).

The Examiner may be of the position that the invention claimed in the present application would be obvious to try after reviewing the cited references. Obvious to try, however, is not the standard by which obviousness is determined under 35 U.S.C. §103. In re Geiger, 2 U.S.P.Q. 2d 1276 (Fed. Cir. 1987); In re Yates, 211 U.S.P.Q. 1149 (CCPA 1981); In re Goodwin, 576 F.2d 375, 198 U.S.P.Q. 1 (CCPA 1978).

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Applicants direct attention to the decision in In re Geiger, 2 U.S.P.Q. 2d 1276 (Fed. Cir. 1987). In this case, the invention was a method of inhibiting scale formation on and corrosion of metallic parts in cooling water systems by use of compositions containing (1) a sulfonated styrene/maleic anhydride (SSMA) copolymer, (2) a water soluble zinc compound, and (3) an organo-phosphorus acid compound or water soluble salt thereof. The Federal Circuit discussed three references cited against the claimed invention. The first, *li*, disclosed use in cooling water systems of scale and corrosion prevention compositions comprising a polymeric component in combination with one or more compounds selected from the group consisting of inorganic phosphoric acids and water soluble salts thereof, phosphonic acids and water soluble salts thereof, organic phosphoric acid esters and water soluble salts thereof, and polyvalent metal salts; the *li* polymeric component could contain maleic acid and styrene monomers, but there was no disclosure of the specific copolymer SSMA required in Geiger's claims. The second reference, Snyder '733, disclosed a method for treating cooling water systems prone to scale formation by the addition of a composition comprising an acrylic acid/lower alkyl/hydroxy acrylate copolymer and another polymeric component, which could be SSMA or a styrene/maleic anhydride copolymer; this reference noted that boiler and cooling water systems share a common problem in regard to scale deposit formation and that use of a styrene/maleic anhydride copolymer to prevent scale in boiler water systems was known. The third reference, Hwa, disclosed a method for treating boiler water systems that are prone to scale formation by addition of a composition

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comprising SSMA and an organo-phosphorus acid component. The Board had held that, based upon the prior art and the fact that each of the three components of the composition used in the claimed method were conventionally employed in the art for treating cooling water systems, it would have been prima facie obvious, within the meaning of 35 U.S.C. §103, to employ these components in combination for their known functions and to optimize the amount of each additive. The Federal Circuit reversed, stating that II did not suggest use of SSMA as its claimed polymeric component and did not require the presence of an organophosphorus acid compound or a zinc compound, that although Snyder '733 disclosed the use of SSMA, it was for the purpose of showing that it, or one of three other specifically recited copolymers, could be used in combination with yet another polymeric component to prevent scale formation, and that while Hwa did disclose the specifically-recited organophosphorus acid compound, it provided no suggestion to add a zinc compound to its disclosed combination of SSMA and organophosphorus acid compounds, or to use SSMA in combination with an organophosphorus acid compound in the treatment of a cooling water system, where the characteristics could differ significantly from those in Hwa's boiler water system. The court concluded, "At best, in view of these disclosures, one skilled in the art might find it obvious to try various combinations of these known scale and corrosion prevention agents. However, this is not the standard of 35 U.S.C. §103." More recently, the Court of Appeals for the Federal Circuit has stated: "With hindsight, we could perhaps agree that the Houghton article seems like an obvious place to start to address the need in the power plant industry

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for an improved carbon-catalyzed deoxygenation process employing hydrazine that can be used commercially in a variety of applications. But, "obvious to try" is not the standard." Ecolochem Inc. v. Southern California Edison, 56 U.S.P.Q. 2d 1065, 1075 (Fed. Cir. 2000). Since nothing in the cited references, viewed in combination, teaches or suggests to one of ordinary skill in the art an ink as recited in claims 1 to 7 and 11 to 20, Applicants are of the position that these claims are patentable with respect to the teachings of the cited references, and accordingly respectfully request reconsideration and withdrawal of this ground for rejection.

Applicants further point out that nothing in the combination of cited references teaches or suggests to one of ordinary skill in the art the present invention as recited in claim 12, which recites specific numbers of cationic sites on the polyquaternary amine molecule for every one anionic site on the lightfastness-imparting agent molecule, and claim 13, which recites specific molar ratios of dye molecules to lightfastness-imparting agent molecules. Since the references do not teach or suggest the specific combination of polyquaternary amine and anionic lightfastness agent in an ink, these references further do not teach or suggest desirable ratios for these values. Accordingly, Applicants are of the position that these claims are particularly in condition for allowance.

Applicants believe that the foregoing amendments and distinctions place the claims in condition for allowance, and accordingly

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respectfully request reconsideration and withdrawal of all grounds for rejection.

In the event the Examiner considers personal contact advantageous to the disposition of this case, she is hereby authorized to call Applicant(s) attorney, Judith L. Byorick, at Telephone Number (585) 423-4564, Rochester, New York.

Respectfully submitted,


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November 14, 2003
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